

NONE



Fractions Practice Problems

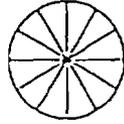
*The Division of Water Quality
makes no claim as the accuracy of
any answers provided herein.*

PRACTICE PROBLEMS 3.1: Naming Fractions

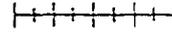
□ Write the denominator that corresponds to each of the following figures:



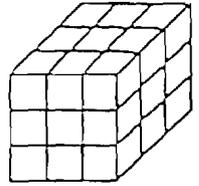
1. = $\frac{\quad}{\bigcirc}$



2. = $\frac{\quad}{\bigcirc}$



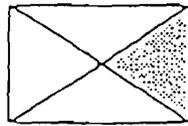
3. = $\frac{\quad}{\bigcirc}$



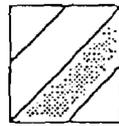
4. = $\frac{\quad}{\bigcirc}$

□ Which figure represents the fraction given?

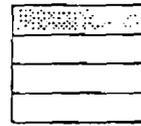
5. $\frac{1}{4}$:



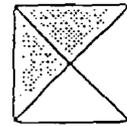
(a)



(b)



(c)



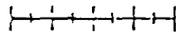
(d)

ANS _____

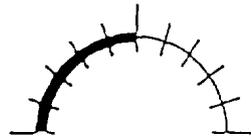
6. $\frac{6}{10}$:



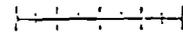
(a)



(b)



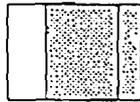
(c)



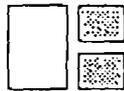
(d)

ANS _____

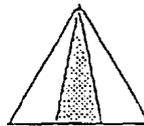
7. $\frac{2}{3}$:



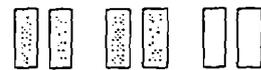
(a)



(b)



(c)

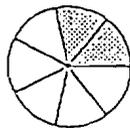


(d)

ANS _____

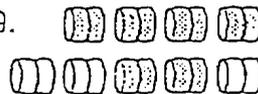
□ In the following problems, write the fraction that represents the shaded area.

8.



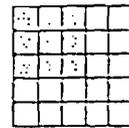
ANS _____

9.



ANS _____

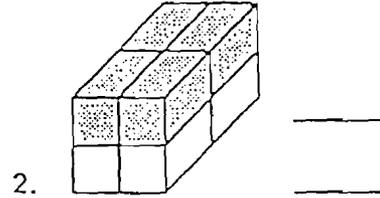
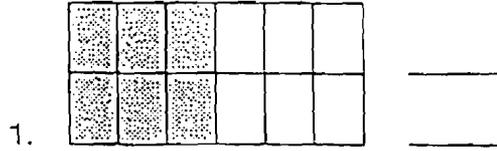
10.



ANS _____

PRACTICE PROBLEMS 3.2: Equivalent Fractions

Write two equivalent fractions that represent the shaded areas in each figure below.



Give two equivalent fractions (using multiplication) for the fraction $\frac{5}{7}$.

3. _____

Find two equivalent fractions (using division) for the fraction $\frac{132}{231}$.

4. _____

Are the pairs of fractions shown below equivalent fractions? If yes, what is their cross product?

5. $\frac{2}{8} = \frac{6}{24}$ _____

Cross Product _____

7. $\frac{5}{6} = \frac{125}{150}$ _____

Cross Product _____

6. $\frac{3}{4} = \frac{8}{12}$ _____

Cross Product _____

8. $\frac{3}{5} = \frac{27}{45}$ _____

Cross Product _____

PRACTICE PROBLEMS 3.3: Reducing Fractions

□ Reduce each fraction to lowest terms:

1. $\frac{18}{24} = \underline{\hspace{2cm}}$

2. $\frac{20}{44} = \underline{\hspace{2cm}}$

3. $\frac{6}{15} = \underline{\hspace{2cm}}$

4. $\frac{25}{75} = \underline{\hspace{2cm}}$

5. $\frac{21}{35} = \underline{\hspace{2cm}}$

6. $\frac{18}{56} = \underline{\hspace{2cm}}$

7. $\frac{12}{40} = \underline{\hspace{2cm}}$

8. $\frac{6}{16} = \underline{\hspace{2cm}}$

9. $\frac{90}{120} = \underline{\hspace{2cm}}$

10. $\frac{72}{189} = \underline{\hspace{2cm}}$

PRACTICE PROBLEMS 3.4: Lowest Common Denominators

Use the factoring method to determine the lowest common denominator for each group of fractions given below.

1. $\frac{1}{6}, \frac{2}{9}, \frac{5}{18}$ LCD = _____

2. $\frac{3}{5}, \frac{7}{8}, \frac{9}{16}$ LCD = _____

3. $\frac{3}{8}, \frac{7}{12}, \frac{5}{6}$ LCD = _____

4. $\frac{2}{3}, \frac{1}{4}, \frac{4}{5}$ LCD = _____

5. $\frac{3}{4}, \frac{7}{10}, \frac{5}{12}$ LCD = _____

Find the LCD, then convert the fractions to like fractions.

6. $\frac{1}{2}, \frac{3}{8}, \frac{7}{12}$ = _____

7. $\frac{2}{3}, \frac{4}{9}, \frac{4}{12}$ = _____

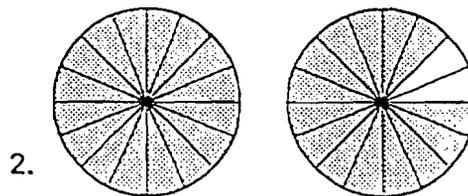
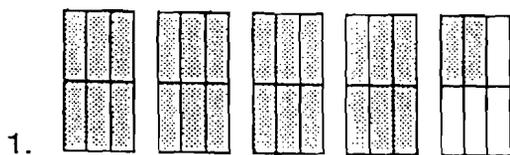
8. $\frac{2}{5}, \frac{5}{6}, \frac{9}{15}$ = _____

9. $\frac{5}{12}, \frac{3}{16}, \frac{7}{8}$ = _____

10. $\frac{2}{3}, \frac{1}{2}, \frac{5}{6}$ = _____

PRACTICE PROBLEMS 3.5: Improper Fractions and Mixed Numbers

- Write a mixed number for the part that is shaded.
Reduce the fractional part to lowest terms.



- Write each mixed number as an improper fraction.

3. $2\frac{5}{8} =$ _____

4. $4\frac{4}{5} =$ _____

5. $3\frac{1}{9} =$ _____

6. $16\frac{3}{4} =$ _____

- Write each improper fraction as a whole number or mixed number in lowest terms.

7. $\frac{25}{14} =$ _____

8. $\frac{98}{11} =$ _____

9. $\frac{19}{8} =$ _____

10. $\frac{19}{6} =$ _____

**PRACTICE PROBLEMS 3.6: Addition and Subtraction of Fractions
or Mixed Numbers**

□ Add or subtract as indicated. Reduce your answers to lowest terms.

1. $\frac{8}{9} + \frac{7}{8} =$ _____

2. $\frac{1}{2} + \frac{3}{4} + \frac{5}{6} =$ _____

3. $6\frac{1}{3} + 3\frac{1}{4} =$ _____

4. $\frac{1}{2} + \frac{2}{3} =$ _____

5. $\frac{1}{4} + \frac{5}{6} =$ _____

6. $11\frac{1}{7} - 4\frac{1}{8} =$ _____

7. $\frac{1}{6} + \frac{2}{3} - \frac{1}{2} =$ _____

8. $\frac{9}{7} - \frac{24}{78} =$ _____

9. $18\frac{8}{13} - 17\frac{1}{2} =$ _____

10. $20\frac{1}{3} + 15\frac{4}{21} =$ _____

PRACTICE PROBLEMS 3.7: Multiplication of Fractions and Mixed Numbers

□ Multiply as indicated, using cancellation of common factors when possible, and reduce your answers to lowest terms.

1. $\frac{2}{3} \times \frac{1}{3} =$ _____

2. $\frac{7}{8} \times \frac{11}{49} =$ _____

3. $\frac{15}{16} \times \frac{48}{6} =$ _____

4. $1\frac{2}{3} \times \frac{3}{4} =$ _____

5. $\frac{3}{3} \times 15 =$ _____

6. $\frac{1}{7}$ of $2\frac{1}{2} =$ _____

7. $8 \times 7\frac{9}{12} =$ _____

8. $9\frac{3}{8} \times 5 =$ _____

9. $\frac{5}{6} \times \frac{9}{5} =$ _____

10. $\frac{7}{8} \times 10 \times \frac{4}{21} \times \frac{2}{15} =$ _____

PRACTICE PROBLEMS 3.8: Division by Fractions and Mixed Numbers

□ Complete the following problems. Reduce your answer to lowest terms.

1. $\frac{3}{5} \div \frac{10}{4} =$ _____

2. $4 \div 11\frac{2}{9} =$ _____

3. $\frac{7}{8} \div \frac{14}{24} =$ _____

4. $\frac{2}{3} \div \frac{1}{5} =$ _____

5. $8\frac{3}{7} \div 5 =$ _____

6. $\frac{1}{5} \div 2\frac{5}{13} =$ _____

7. $1\frac{1}{8} \div \frac{5}{16} =$ _____

8. $\frac{7}{16} \div \frac{7}{8} =$ _____

9. $\frac{2}{7} \div \frac{16}{21} =$ _____

10. $12\frac{4}{5} \div 3\frac{3}{8} =$ _____